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The Political Economy of Healthcare Litigation

Model and Empirical Application to Uruguay

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Abstract

The political economy of health care is complex, as stakeholders have conflicting preferences over efficiency and equity. This paper formally models the preferences of consumer and producer groups involved in priority setting and judicialization in public health care. It uses a unique dataset of stakeholder perceptions, from Uruguay, to test whether these hypotheses are consistent with empirical evidence. The results suggest that the expectations of the political economy literature are supported: 1) regulators of public healthcare are less concerned with efficiency considerations than consumers; and 2) less organized groups are more concerned about equity than more organized interest groups. With respect to the consequences of health litigation, the findings are only partially consistent with the health care governance literature. Consumers perceive litigation as more beneficial than health care providers and regulators do. Counter-intuitively, powerful interest groups seem less willing to use litigation to shape policy outcomes.

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The Political Economy of Healthcare Litigation: Model and Empirical Application to Uruguay[1]

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I. Introduction

As in any other public policy-making field, scarcity of resources means that the nature of publicly financed health care provision is affected by political economy dynamics. These 'generic' underlying dynamics determine the relative bargaining power of different stakeholders, and therefore, who gets what, when and how. Given the (partially) conflicting priorities of different stakeholders, it becomes possible to anticipate that perceptions of the utility of the public health care system vary across stakeholders in predictable ways. Furthermore, emanating from this general premise, it is possible to anticipate the different reactions of stakeholders to institutional change, which alters the attributes of the public health care system.

One major institutional change that has occurred/may occur in many countries is the increased use of health care related litigation. The substantive effect of increased health litigation, on the overall utility of the public health care system, is controversial and much disputed in the literature. On the one hand, increased litigation can improve the protection of the individual right to health, as well as generate positive externalities in policy design, implementation and monitoring. Thus, health litigation can, potentially, correct inefficiencies in the public health system and ensure that litigant's rights are not ignored. On other hand, the enforceability of the individual right to health care can also have a negative impact on health systems by distorting the allocation of resources towards the priorities of those who can litigate (not necessarily representatives of the typical patient), as well as adversely affecting the fundamentals of priority setting, equity, and the financial sustainability of the benefit plan. What is the net effect of litigation? Does it promote/diminish the equity and/or efficiency of public health benefit plans?

This paper aims to contribute to this growing corpus of work by formally developing and testing the implications of a model of the political economy of public health resource allocation. Specifically, we test: (1) whether the agendas of stakeholders do diverge significantly along efficiency and equity dimensions as the *generic political economy literature* would anticipate; and (2) given the substantive assumptions of the governance literature, how increased health litigation is perceived to affect the welfare of different stakeholder groups. These empirical implications, of the model, are tested using data collected from key healthcare stakeholders in Uruguay. This research agenda is realized via the first section. The next section, Section II, provides a brief literature review- thereby, providing a rationale for modeling and critically evaluating, via empirical hypothesis testing, the political economy of public

health care and health litigation. Section III develops a simple model of the political economy of health care- the aim of the section being to generate a set of hypotheses, whose robustness can be tested. Subsequently, Section IV, using a unique dataset of stakeholder perceptions from Uruguay, empirically evaluates the veracity of these theoretically derived hypotheses. The final section concludes with a critical evaluation of the findings and implications of the previous sections.

II. Literature Review

Virtually all developed and many developing countries provide some form of publicly financed health services to their citizens. Given the scarcity of resources, governments have had to devise mechanisms to determine the nature of health service allocation. The ensuing political economy of health care allocation is thus, characterized by potentially complex considerations of both: (1) *efficiency*[5]- are publicly financed health services efficiently/poorly allocated? and (2) *equity*[6]- what are the implications of providing different levels of heath care services to (sub-sets of) the population? Unsurprisingly, all elements of this process are potentially subject to classical principal-agent problems as the interests of the agents (health bureaucracies and providers) may deviate from those of their principal (health care consumers). The magnitude and nature of any such principal-agent dynamics varies depending on how the institutional context conditions the nature of interaction between the two. Specifically, a wide range of institutionally induced incentive structures have been developed/used over time, to try and mitigate conflicts of interest between public health care providers (agents) and (potentially multiple) consumers (principals) (Besley, 2006).[7] One such institutional mechanism that can alter the dynamics of interaction, between health care providers and consumers, is health litigation. That is the use of court rulings to change decisions regarding the allocation (efficiency) and access (equity) of the public health care system.[8]

[5] Formally efficiency can be defined as the extent to which input resources, of a health care system, are transformed into intended outcomes (consumer demands are satisfied) as opposed to diverted to other activities (the private agenda of health care providers).
[6] Formally equity can be defined as equal access to health care goods and services regardless of individual identities, and resource endowments.
[7] Besley, T. Principled Agents?: The Political Economy of Good Government. Oxford University Press, USA, 2006.
[8] Gloppen, Siri. "Litigation as a Strategy to Hold Governments Accountable for Implementing the Right to Health." Health and Human Rights. 10.2 (2008): 21-36.

The increasing use of judicial mechanisms to alter the incentives of agents has generated extensive discussion, regarding the net welfare effects of increased litigation.[9] For its supporters health litigation makes the public system more responsive to consumer demands, effectively ensuring that patients can access the services they need and minimizing rent extraction[10] by public health providers. Academics such as Gloppen and Gargarella (2008) argue that litigation can contribute towards holding governments and public health agencies accountable and thus mitigating incentives for negligence and malpractice.

However, skeptics argue that impact of health litigation is not necessarily positive. Some critics argue that judges do not have the duty or technical competence to decide on health related policy concerns.[11] Executive agencies are often worried of the increasing costs associated with health litigation, arguing that increased judicialization threatens the financial sustainability of healthcare systems. Others, such as Horowitz (1977) argue that the judicialization of public health care may impact and even distort decisions in health planning and priority setting, decisions that might not reflect the collective need but rather the individual right that the courts judge upon.[12] According to this argument, the health litigation mechanism can create significant adverse equity effects which are often costly.

This is because the costly nature of health litigation means that, unless all health consumers have the same political and/or economic resources, certain groups are more likely to be able to litigate effectively vis-à-vis others. This raises the possibility of classical, Olsonian style (1982) opportunities for rent-seeking[13] whereby, more organized individuals/groups are able to determine the allocation of resources at the expense of unorganized groups and health care agencies. In other words, critics argue that resource allocation resulting from litigation is not necessarily optimal (if the socially optimum is

[9] Gloppen, Siri, et al. "Right to Health through Litigation?" Rights Democracy and Development. (2008)., Hans Hogerzeil, Hans, et al. "Is Access to Essential Medicines as Part of the Fulfillment of the Right to Health Enforceable through the Courts?" The Lancet 368.9532 (2006): 305-11.

[10] Rent extraction can be defined as the ability of policy producers to divert resources designed to meet consumers demand for publicly financed goods to satisfy their own private agenda. For example, they may steal equipment, be negligent of their duties, resort to extortion in order to deliver services etc.

[11] Kersh, Rogan, and James Morone. "Obesity, Courts, and the New Politics of Public Health." Journal of Health Politics, Policy and Law 30.5 (2005): 839.

[12] Helmke, Gretchen, and Jeffrey Staton. Courting Conflict: A Logic of Risky Judicial Decisions in Latin America. 2009.,Gloppen, Siri, et al. "Right to Health through Litigation?" Rights Democracy and Development. (2008).

[13] Rent seeking can be defined as the willingness of organized interest groups/individuals to expend resources on lobbying, litigating, and/or bribing policy-providers to allocate fixed and finite (public) resources to further their private agendas. For example a pharmaceutical company may lobby for the public health care system to use its product as a treatment even though this is not the most cost-effective use of scarce resources.

conceived as taking the latent preferences of all groups and individuals into account). Thus, while health litigation might limit incentives for rent-extraction by the agency, it may create incentives for rent seeking, as organized groups (e.g. pharmaceutical industries, lawyers) can use litigation to pursue their private agenda at the public expense.

Given the potentially multi-faceted effects of increasing health litigation, it is unsurprising that there is a growing body of research that has attempted to determine the net welfare effect of this phenomenon. For instance, Gloppen (2005, 2008) and Yamin (2008) examined the effects of health litigation with respect to its implications on equity, access and quality.[14] Gloppen (2008) and Gargarella (2008) examined whether litigation shifts resources from one group of patients to another, as well as the nature of the claims.[15] Furthermore, Gloppen (2008) and Mæstad (2008) studied the equity implications of health litigation, while others, such as Hogerzeil (2006), examined the impact on access to health services in Latin America.[16] Yamin and Gloppen (2010) also looked at the financial implications, of judicial decisions, on health care policy. Despite this growing corpus of research, the controversy over the net effects of health litigation persists.[17] In summary, the literature on the effects of health litigation suggests that public health care is dominated by a set of actors with divergent preferences over at least two salient issue dimensions. Thereby, rendering it difficult to establish, a priori, what the effects of changes in the governance of public health care, due to increased litigation, are likely to be.

III. A Simple Model of the Political Economy of Public Health Policy

Given its inherent complexity, modeling the generic political economy of public policy is challenging, because: (1) there are multiple issue dimensions (efficiency/rent-extraction and equity/rent-seeking); and (2) multiple actors with different preferences (individual agents, organized and unorganized groups). Fortunately, given the large number of workhorse models of political economy that focused on

[14] Gloppen, Siri, et al. "Right to Health through Litigation?" Rights Democracy and Development. (2008).
[15] Gloppen, Siri, et al. "Right to Health through Litigation?" Rights Democracy and Development. (2008).
[16] Gloppen, Siri, et al. "Right to Health through Litigation?" Rights Democracy and Development. (2008)., Hans Hogerzeil, Hans, et al. "Is Access to Essential Medicines as Part of the Fulfillment of the Right to Health Enforceable through the Courts?" The Lancet 368.9532 (2006): 305-11.
[17] Yamin, Alicia, and Oscar Parra-Vera. "How Do Courts Set Health Policy? The Case of the Colombian Constitutional Court." PLoS Medicine 6.2 (2009): e1000032.

either: (1) principal-agent conflicts of interest[18] (efficiency/rent-extraction), and/or (2) interest group politics[19] (equity/rent-seeking); it is possible to combine the insights of the two modeling traditions[20] into one simple model. This exercise, of formally modeling the political economy of public policy-making, enables the generation of a rich set of implications, which can: (1) generate predictions about different actors' interest, preferences and perceptions of the utility of current equilibrium outcomes (nature of the public health care system), and, consequently, (2) in conjunction with substantive assumptions regarding the impact of institutional reform on equilibrium outcomes, predict the welfare implications and perceived support for different reform proposals (see the next sub-section). Therefore, the modeling exercise serves as an essential basis for developing sophisticated and context specific hypotheses regarding the perceptions of and the impact of institutional change on, stakeholder perceptions of the public health care system.

The Model[21]

As in Persson (1998, p.311) and Persson and Tabellini (2000, p.161-163) let us consider a polity in which individual voters (policy consumers) belong to different but equally powerful interest groups $j = 1 \ldots j = n$, and $J \geq 3$, each group has a set of members with a cumulative density which equals to 1. Individuals in any given group *j* have the same homogenous preferences[22]:

$$w^j = c^j + H(g^j) \tag{1.01}$$

[18] The notion that the public sector agencies may have their own private agendas was first developed by members of the Virginia School of Political Economy/Public Choice School. With respect to the autonomy of public sector agents the seminal contribution is Niskanen (1971). Recent seminal contributions include Shleifer and Vishny (1998).

[19] Bernheim, B.D., and M.D. Whinston. "Exclusive Dealing." National Bureau of Economic Research Cambridge, Mass., USA, 1996.; Grossman, G.M., and E. Helpman. "Technology and Trade." National Bureau of Economic Research Cambridge, Mass., USA, 1994.; Coe, D.T., and E. Helpman. "International R&D Spillovers." European Economic Review 39.5 (1995): 859-87.; Persson, T. "Economic Policy and Special Interest Politics." The Economic Journal 108.447 (1998): 310-27.; and Persson, T., G.E. Tabellini, and I. Gasparini. Institute for Economic Research. Political Institutions and Policy Outcomes: What Are the Stylized Facts? : Centre for Economic Policy Research, 2001, pp.172-174.

[20] Models of lobbying which incorporate bureaucratic behavior and the political process include Laffont and Tirole (1993)- bureaucratic capture- and legislative oversight of the bureaucracy (Horn, 1994).

[21] This model is a close adaptation of Persson (1998) also available in Persson and Tabellini (2000), pp.172-174. Specifically, the model developed below incorporates the possibility that the public sector (agent) may have its own independent agenda (rent-extraction) and does not merely cater to the demands of organized (rent-seeking) and unorganized groups.

[22] Expression (1.01) is almost the same as Expression 1 in Persson (1998, p.311)

Where,c^j denotes the consumption of private goods consumed by a given group's members, g^j is the average supply of -group specific- but publicly financed goods and '*H* is an increasing and concave function $\mathrm{H}(\cdot)$ with $\mathrm{H}(0) = 0$' (Persson and Tabellini, 2000, p. 161)', which only benefits the individual group j members and which is financed by general taxation (ibid). It is also assumed that individual income within all groups is equivalent so that '$y^j = \mathrm{y}$; (Persson, 1998, p. 311 − 312; Persson and Tabellini, 2000, pp. 161 − 162).

A simple, socially optimum efficiency benchmark can be derived by assuming that the vector of group specific publicly financed goods '$g \equiv (g^j)$' is exclusively financed by a group-specific lump sum taxes (τ^j)' which are used to generate all publicly financed goods and rents (Persson and Tabellini, 2000, pp. 161 − 162)[23]:

$$, c^j = y - \tau^j = y - g^j ,$$

(1.02)

The social optimum in this context is realized, in any given group, when the marginal benefit, for the average group member, is equivalent to the marginal social cost of provision (Persson, 1998, p.312), that is[24]:

$$, H_g(g^*) - 1 = 0,$$

(1.03)

To see the impact of public sector autonomy on group welfare assume that lump sum taxes are collected by a public agency (ϕ-the government)[25]. The lump sum tax collected from each group is exactly *equivalent* to the revenue required to generate the optimal level of group specific publicly financed goods $0 \leq \tau^j \leq g^{*j}$ and group specific taxes cannot be redistributed across groups (this assumption is relaxed below). However the agency has some discretion over how to use the group specific tax. In particular, the agency can: (1) finance the provision of group specific publicly financed

[23] Expression (1.01) is identical to expression 2 in Persson (1998, p.12).

[24] Expression (1.02) is identical to expression 7.2 in Persson and Tabellini (2000, p.162)

[25] Conceived here as a unitary entity. In fact modeling the effect of government as the weighted, for policy-discretion, average of all public sector agencies yields the same qualitative results.

goods (lump sum taxes of one group cannot be redistributed to another group); or (2) use tax revenue to generate rents for the agency (rent-extraction). The group specific budget constraint is such that $\tau^j = g^j + r^\phi$. Where r^ϕ is the proportion of the group's taxable income which is expropriated as rents by the agency, r^ϕ must hence, satisfy $0 \le r^\phi \le g^{*j}$.The agency's utility is composed of two distinct components: (1) the utility it derives from the use of lump sum taxes to provide publicly financed goods and private consumption by all groups (benevolent/congruent component); (2) the use of tax resources to generate rents (rent-extracting component):

$$w^\phi = \beta\left(c^j + H(g^j)\right) + (1-\beta)r^\phi \_ \forall j \in J$$

(1.04)

Where β is the agency's marginal propensity, $0 \le \beta \le 1$, to be benevolent, that is maximize group utility by allocating lump sum taxes so that the average marginal group benefit equals the social cost (1.03). Thus, members of group j now consume:

$$c^j = y - \tau^j = y - \beta g^j - (1-\beta)r^\phi$$

(1.05)

The optimal vector of publicly financed goods (given the agency's private preferences) is now determined by the propensity of the agency to pursue a rent-extracting strategy. Thus, the provision of group specific goods, (1.03), becomes:

$$\beta H_g(g^*) - 1 = 0$$

(1.06)

Differentiating (1.05) with respect to β, $\partial w^\phi / \partial \beta$, has a very intuitive effect on tax allocation as the second component in expression (1.05) tends towards zero. Thus, if β equals to one, then the public agency is purely benevolent, $\partial w^\phi / \partial \beta = \left(c^j + H(g^j)\right)$, and, therefore, (1.06) equals (1.03). Conversely, if β equals to zero the agency is purely rent extracting, $r^\phi = g^{*j}$, and no publicly financed goods or private consumption occur as the first component of (1.05) is now equal to zero. Intuitively, if $0 < \beta < 1$ groups are overtaxed, because the tax rate is fixed at $\tau^j = g^{*j}$ but (1.06)<(1.07) meaning that publicly financed goods and private consumption are undersupplied as the gap between tax revenues and the cost of generating such publicly financed goods is used to generate rents. Formally, the allocation of

resources between the provision of publicly financed goods and rent-extraction given the social cost (recall that this is set to unity) is:

$$\beta H_g(g^*) - (1-\beta) r^{\phi} - 1 = 0 \tag{1.07}$$

Relaxing the assumption that taxes, from a given group, can only be used to finance: (1) group specific goods and/or, (2) agency rents, allows the illustration of how special interest lobbies can alter the allocation of resources. Assume that publicly financed goods and agency rents are now financed by a general lump sum tax on all groups (Persson 1998, p.312). Given such a universal tax regime, τ, the budget constraint is now $J\tau = \sum_{j=1} g^j + r^{\phi}$. Thus, the members in any given group j consume the following group specific goods:

$$c^j = y - \tau = y - \beta \left(\sum_{j=1} g^j \right) \Big/ J - (1-\beta) r^{\phi} \tag{1.08}$$

Intuitively, if a given group *j* was capable of expanding the provision of its specifically desired good, g^j, the marginal cost it faced would be the average level of taxation- $1/J$- which is in fact less than the real marginal cost- if j is sufficiently big (Persson, 1998, p.312-313). If each group can therefore independently push and achieve its optimum level of a group specific good provision, and given the exogenous level of agency rent-extraction, (1.06) becomes:

$$\beta H_g(g^{J,D}) - (1-\beta) r^{\phi} - 1 = \beta H_g(g^J) \frac{1}{J} - (1-\beta) r^{\phi} - 1 = 0 \tag{1.09}$$

Where an equilibrium outcome is equivalent to a vector $\bar{g}^{D}$ (where **D**=decentralized spending), so that each lobby group , j, maximizes $W^j(g)$ given g^j taking both agency rents- r^{ϕ} - as well as the actions of all other groups as exogenous and given (Persson and Tabellini, 2000, p.163). Since the right hand-side of (1.09) has a negative value and unless $r^{\phi} = \sum_j y$, in which case no groups but only the agency allocates resources, all groups have an incentive to overspend vis-à-vis the social optimum -(1.06) as $g^{J,D} > g^*$

for all J (Persson and Tabellini, 2000, p.163)**.** In particular smaller groups overspending more vis-à-vis their larger counterparts as each group only fully takes into account the benefits of its own (group specific) publicly financed goods provision but only pays a fraction of the marginal cost of higher taxation and agency rent-extraction for which it is liable. Thus, the concentration of private benefits and the diffuse nature of social costs leads to excessive spending when such spending is residually defiance out of a common pool of resources (ibid).

So far the assumption of this model has been that each group or lobby has equal political power. However, it may be possible that some groups can organize as a lobby in order to incentivize a more favorable allocation of common tax revenue for the provision of their preferred publicly financed goods. For simplicity, assume that lobbies cannot alter the generation of agency rents. That is, the agency cannot credibly commit to alter its level of rents generated from tax revenue. However, lobbies can influence the allocation of resources, between the provisions of different group specific publicly financed goods. Therefore, if it is assumed that organized groups (lobbies) are all-inclusive and have the sole objective of simply maximize the welfare of their members (Persson, 1998, p.313-314). Then, the utility function of any given organized group *j* (lobby) given agency rents, is given by (ibid):

$$w^l(g) = y - \beta\left(\sum_j g^j\right)\Big/ J + \beta H(g^l) - (1-\beta)r^{\phi}$$

(1.10)

At the first stage of this policy-making game, each organized interest group, unilaterally (without any considerations for what other groups do) and simultaneously, provides the agency with a (potential) contribution/transfer $C^j(g)$ which it can credibly commit to providing, as long as the agency generates the groups preferred policy. In line with precedent, limiting the focus to truthful strategies pursued by all lobbies/interest groups (Persson, 1998, p.313)[26] such a strategy must meet the following condition:

$$`\ C^l = w^l\beta(g) - b^l\text{'}$$

(1.11)

[26] Expression 1.11 is exactly as Persson (1998, p.313) expression 7.

Where b^l is a constant parameter that is set by the interest group in order to maximize the said group's specific welfare- which is simply, ' $w^l \beta(g) - C^l(g)$'(Persson,1998, p.313).

At the second stage of the game the agency sets g so as to maximize the utility of all the actors involved given their effective demand/importance to the agency (determined by the agencies taste for rent extraction and the ability of lobbies to provide contributions). Specifically that includes: (1) the utility of unorganized groups, and (2) lobby contributions discounting for its (the agency's) (3) (exogenously) determined propensity to rent-extract. That is:

$$w^{\phi}(g,r) = \beta\left(\alpha\sum_{j\notin L} w^j(g) + (1-\alpha)\sum_{j\in L} w^j(C)\right) + (1-\beta)r^{\phi}$$

(1.12)

Where α is the propensity, $0 \le \alpha \le 1$, of the agency's conditional benevolence (willingness to allocate resources to satisfy unorganized groups after rent-extraction satisfying agency needs has occurred). The logic behind the equilibrium outcome is that, the (Pareto) optimal solution is the one that takes into account the dynamic between the agency (and its private objective-1.12) and the effective demand of organized lobbies ' $\sum_{j\in L}[w^j(g) - C^j(g)]$' (Persson,1998, p.313). Thus, given these incentives the optimal policy, as set by the agency, maximizes:

$$w^{\phi}(g,r) = \beta\left(\alpha\sum_{j\notin L} w^j(g) + (1-\alpha)\sum_{j\in L} w^j(g)\right) + (1-\beta)r^{\phi}$$

(1.13)

Aggregate social welfare for unorganized groups (vs. organized lobbies and government agencies) is defined in the same manner as in (1.12) (Persson and Tabellini, 2000, p.173). Thus, the extent to which the impact of lobbies affects outcomes can be deduced from the first-order condition of (1.13):

$$H_g(g^j) = \beta\left(\frac{|L|}{J} + \alpha\left(1 - \frac{|L|}{J}\right)\right)\_ j \in L$$

(1.14a)

$$H_g(g^j) = \beta\left(\frac{|L|}{\alpha J} + \left(1 - \frac{|L|}{J}\right)\right)\_ j \notin L$$

(1.14b)

From (1.14a, 1.14b) it is possible to deduce that a socially optimum equilibrium is possible and would emerge if $g = (g^*)$ (Persson and Tabellini, 2000, p.174). This occurs, in the very restricted case, when $\alpha = \beta = 1$ (the agency is multi-dimensionally benevolent- neither rent-extracting nor accepting contributions from lobbies). Lobby contributions are non-existent if: (1) $L = \varnothing$ (there are no organized lobbies); or (2) $\beta = 0$ (all income is expropriated by a rent-extracting agency). The impact of lobbies, on the allocation of taxation, will also be inconsequential if $|L| = 1$ (all groups are organized-lobbying for the provision of their own preferred publicly financed goods but also the reduction in spending on all other publicly financed goods) (Persson, 1998, p.314). Lobby power is maximized when $\alpha = 0, \beta = 1$ in which case all resources are allocated by the contribution of lobbies.

Given the assumptions of the model, as well as any status quo institutional configuration, $S(\alpha, \beta)$, the (institutionally unconstrained) bliss point (w^*) of any actor (unorganized group, the agency, organized groups) will diverge from that of any other actor. As, by assumption, the bliss point of a/an: (1) unorganized group is realized when $w^{j \notin L^*}(\alpha, \beta) = (\alpha = 1, \beta = 1)$ (efficiency and equity maximizing); (2) agency is realized when $w^{\phi^*}(\beta) = (\beta = 0)$ (efficiency minimizing); (3) organized lobby is realized when $w^{j \in L^*}(\alpha, \beta) = (\alpha = 0, \beta = 1)$ (efficiency maximizing equity minimizing). As, it cannot be the case that, at any one time $\alpha = 0 = 1$ and $\beta = 0 = 1$, then $w^{j \notin L^*} \neq w^{\phi *} \neq w^{j \in L^*}$. Therefore, the major (generic) testable implication of the model is that:

Generic Hypothesis: Perceptions of the efficiency and equity, of the status quo public health care system, will differ systematically across actors (stakeholders).

Specifically, it is possible to deduce the following specific hypotheses, regarding how different actors will perceive the efficiency and equity of the status quo relative to other actors:

Hypothesis 1: All policy consumers (lobbies and unorganized groups) will value/prioritize efficiency more than the agency $\beta^{*j} > \beta^{*\phi}$

Hypothesis 2: Relatively unorganized groups will be more concerned about equity effects than organized groups $\alpha^{*j\notin L} > \alpha^{*j\in L}$.[27]

More pertinently, the implications of the model can be used to predict how different actors will perceive changes to the institutional context (welfare implications induced by changes in the efficacy and equity outcomes)- therefore, a change in the institutional context from say $S(\alpha,\beta)$ to $S'(\alpha',\beta)$ will generate predictable reactions from different actors. Generally an institutional change will affect the welfare of a given group depending on how its marginal effect alters the efficacy and equity of different actors. Specifically:

Unorganized groups will favor an institutional reform if[28]:

$$j\notin L=\begin{cases}\alpha'>\alpha\,\&\,\beta>\beta\\ \alpha'>\alpha\,\&\,\beta=\beta\_if\_\beta\neq 0\\ \alpha'=\alpha\,\&\,\beta>\beta\\ \alpha'>\alpha\,\&\,\beta<\beta\_but\,|\alpha'|>|\beta|\\ \alpha'<\alpha\,\&\,\beta>\beta\_but\,|\alpha'|<|\beta|\end{cases}$$

(1.15a)

Organized groups will favor an institutional reform if:

$$j\in L=\begin{cases}\alpha'<\alpha\&\beta>\beta\\ \alpha'<\alpha\&\beta=\beta\_if\_\beta\neq 0\\ \alpha'>\alpha\&\beta>\beta\_but\,|\alpha'|<|\beta|\end{cases}$$

[27] It is important to note that, according to the logic of classical collective action problems, that more all- encompassing but unorganized groups (e.g. civil society, general interest patient groups) will, on average, have a greater latent concern regarding the overall equity of the health care system vis-à-vis patient groups with better organization but a more narrow focus (e.g. cancer patient lobbies). Thus, in practice, the latter groups are more likely to effectively lobby for equity, even though the preferences, as recorded in the stakeholder analysis, of the former groups should exhibit greater concerns for overall equity.

[28] It is easily to establish conditions under which a given actor will be indifferent to or be adversely affected by a reform but this does not.

(1.15b)

The agency will favor an institutional reform if:

$$\phi = \{\beta < \beta'$$

(1.15c)

In short, given their distinct ideal preferences, it is possible to deduce, the conditions under which an institutional reform will be perceived to be welfare enhancing from the perspective of different actors involved in the political economy of public policy-making.

Substantive Assumptions: A Case Study of Health Litigation

It is now possible to use the generic implications of the model, in conjunction with substantive arguments, regarding how specific institutional change affects the efficiency and equity attributes of the public health care system, to generate a set of secondary, or substantive hypotheses regarding stakeholder perceptions of the welfare effects of institutional change. As noted above (see Literature Review), the rise of health litigation, as a means of altering the nature of public health resource allocation (change in incentives $S(\alpha, \beta)$ to $S'(\alpha', \beta)$), has generated a debate regarding the consequences of this contextual transformation on the incentives faced by the public health care providers. As Gloppen (2009), p.24 notes[29]:

> *'Litigation can contribute towards holding governments accountable with respect to policy gaps and implementation gaps…bringing national health laws and policies in line with health rights obligations* $(\beta > \beta)$*…However, this does not mean that litigation is the best approach to advance health in a society- nor that it is necessarily contributes positively. The criticism voiced against court-centric approaches to health rights and, more generally, against health litigation…[is that] poor people are less likely to litigate and that the "haves" tend to come out ahead in court* $(\alpha' < \alpha)$*'*

In short, the generic model developed above can be used, in conjunction with these substantive claims emanating from the literature, to operationalize and test a set of hypotheses, regarding the multiple consequences of institutional change (more health litigation), on perceptions of stakeholder welfare. Essentially, what Gloppen (ibid) is arguing is that increasing the responsiveness of public sector

[29] Gloppen, Siri. "Litigation as a Strategy to Hold Governments Accountable for Implementing the Right to Health." Health and Human Rights. 10 (2) (2009): 21-36

health agencies to the demands of health consumers may have the effect of: (1) reducing the agencies' incentives for rent-extraction, but, also by (2) enhancing the ability of some policy-consumers (organized groups) to use the courts to effectively alter these agencies more effectively than unorganized groups, increasing the magnitude of rent-seeking. Thus, the net effect of health litigation, from the perspective of different actors is potentially ambiguous. Specifically, according to this literature and the generic implications of the model increased health litigation should be anticipated to be perceived:

1. As a negative development by the agency (diminished ability to extract rents),
2. Ambiguously by effect on unorganized groups (the net effect will depend on whether the welfare gain from a reduction in rent-extraction is greater or smaller than the welfare gain from the increased power of lobbies),
3. As a positive development by consumer lobby groups (who gain the ability to more effectively pursue a rent seeking agenda),

Of course when seeking to operationalize these substantive claims via the generic model, it is important to note that the binary distinction between the different actors may need to take into account the complex interaction some groups have with each other. Thus, while there may be a clear distinction between public sector agencies and relatively unorganized groups, the incentive alignment of more organized groups and the public sector may be more blurred. This is because such organized groups may be interacting with public sector agencies in multiple issue dimensions and may therefore, condition their perceptions, of the impact of institutional change (such as increased health litigation),to take this complexity into account. For example, pharmaceutical companies (organized groups) may be reluctant to pursue an aggressive policy of health litigation because it may antagonize their dealings in other issue dimensions with public sector agencies. It is therefore, important, when operationalizing the model, to ensure that different definitions of actors are used in order to control for the possibility that certain organized groups may have complex and multiple interactions with the public sector test the robustness of the model's hypotheses. Therefore, it can be anticipated that broader definitions of actors will yield the most robust results as this reduces the possibility that the multi-dimensional considerations of any one sub-group will affect the outcomes of the empirical analysis.

IV. Empirical Results

We tested the empirical implications of our model on a new dataset of stakeholders' perceptions of the efficiency and equity attributes of the public health care system and perceptions of the impact of health litigation in Uruguay. Since the early 1990s, there has been an increasing trend in the overall number of litigation cases brought to Latin American courts on the basis of constitutionally guaranteed rights to health and life. For example, the phenomenon of health litigation took shape around 1995 in Colombia (Contreras 2008).[30] The number of litigation cases brought to the Colombian courts reached a total of 33,328 in only two years. This example is not singular, as Brazil and Argentina started to follow the escalating trend. Given budget constraints, the individual or group claims against governments caused distortions in terms of equity, efficiency and financial sustainability of the publicly funded healthcare plans. Compared to such regional standards, the number of healthcare litigation cases in Uruguay is small. According to a study that includes a selected sample of litigations from 2001 to 2009, there were nine (9) cases of judicial proceedings that demanded access to certain medications[31] and five (5) cases from 2009 to 2010.[32] According to additional estimates of one of the main executive agencies affected by judicialization, the number of cases has been around 20 a year.[33]

Taking into considerations the relatively small scale of the judicialization phenomenon, as well as the lack of issue polarization among key stakeholders, Uruguay offers a compelling and feasible pilot case study of actors' perceptions of the efficiency and equity consequences health litigation.

Methodology

In order to solicit perceptions of relevant actors, we followed the main steps and procedures of stakeholder analysis. Stakeholder analysis and mapping are methods widely used in management and social sciences to identify the key actors in a policy process, as well as their incentives, power and positions within a given policy domain. More specifically, this method has been extensively used in

[30] Contreras, Juan. "La tutela como manifestación de algunas fallas del mercado y de gobierno en el sistema general de seguridad social en salud de Colombia que comprometen la eficiencia y la equidad del mismo." Revista de Derecho y Economía. 25 (2008).

[31] Campos, Santiago Pereira, Rafael García Martínez, et al. Estudios Multidisciplinarios sobre Derecho Medico y Organizaciones de la Salud. Uruguay: La Ley Uruguay, 2011. pg. 285.

[32] Campos, Santiago Pereira, Rafael García Martínez, et al. Estudios Multidisciplinarios sobre Derecho Medico y Organizaciones de la Salud. Uruguay: La Ley Uruguay, 2011.

[33] Sartori, Maria Paz. "Fondo de Recursos sufre presiones jurídicas importantes" debido a laboratorios que sustentan las demandas, dijo experto de la OPS" Seminario Búsqueda. June 9, 2011.

public health research in order to provide a cross-sectional picture of an evolving political economy of actors' interaction.[34]

Methodologically, stakeholder mapping relies on in-depth interviews with major stakeholders (therefore a large s/N sample to population proportion), but it can be used jointly with other quantitative or qualitative social science methods. It has also been found useful as a preparatory tool for micro-level household surveys and formal modeling.[35] For the analytical purposes of this paper, we do not present the complete stakeholder mapping and analysis. Instead, the empirical section uses a number of selected survey questions that tap exclusively into general questions of equity and efficiency assessments in relation to priority setting and litigation. [36]

Why not micro-level surveys with larger sample size for analyzing priority setting and health litigation? Priority setting and the Constitutionally mandated right to health are ultimately patient-centric issues, ideally addressed with micro-level data. However, stakeholder mapping and macro-level political economy analysis are more useful as initial analytical building blocks for several reasons: 1) the issues of health litigation and priority setting have been only recently emerging in developing countries; their salience is not yet high enough among the general public, and the pool of claimants is very small compared to the general population; 2) stakeholder analysis and mapping analyze *aggregated* preferences of mobilized groups as opposed to *diffuse interests* of citizens, therefore being more relevant to short term policy making dynamics; 3) patient focus groups can be a substitute for micro-level surveys especially as the problem is complex, vaguely specified and would benefit from interaction among participants; often, however, stakeholder analyses help identify the policy issue and preferences with greater precision, and guide the design of subsequent micro-level survey instruments whenever analytically necessary.

Data collection

[34] For an extensive methodological review, see: Ruairí Brugha and Zsuzsa Varvasovszky. "Stakeholder Analysis: a Review, *"*Health Policy and Planning (2000) 15 (3): 239-246. Examples of stakeholder analyses in the public health research: Blair et al. 1996; Reich 1994

[35] http://www1.worldbank.org/publicsector/anticorrupt/PoliticalEconomy/stakeholderreading.htm; Fadi El-Jardali, Jihad Makhoul, Diana Jamal, Michael Kent Ranson, Nabil M Kronfol and Victoria Tchaghchagian. "Eliciting policymakers' and stakeholders' opinions to help shape health system research priorities in the Middle East and North Africa region." Health Policy and Planning (2010) 25 (1): 15-27.

[36] Zsuzsa Varvasovszky and Ruairí Brugha . "How to Do (or Not to Do)…: A Stakeholder Analysis*,"* Health Policy Plan. *(2000)* 15 (3): 338-345.

In order to understand and map stakeholders' positions on the consequences of judicialization of health, we collected two sets of data: first, with the help of a team of local consultants with an established national reputation in the fields of law and public health,[37] we identified a representative sample of key actors with influence and stakes on the specific issue of healthcare judicialization (representatives of several agencies within executive, legislative branch, political party leaders, members of the judiciary, pharmaceutical companies, patient/consumers groups, civil society representatives, doctors' associations, insurers groups etc.). Subsequently, we conducted around 45 in-depth face-to-face interviews in Montevideo (March-April 2011). The qualitative (semi-structured) component of the study allowed us to gather more fine-tuned theoretical insights and take into account additional stakeholders indicated to us by our respondents during the semi-structured interviews.

Second, incorporating these insights, we designed, pre-tested and implemented a quantitative stakeholder survey in order to systematically capture differences in evaluation of stakes across groups of actors within the policy domain. To our knowledge, this is one of the first attempts to test statistically stakeholders' perceptions of the *efficiency* and *equity* of the public benefit plan in general, as well as the implications of rising healthcare litigation on these two issue dimensions in particular.

The survey design attempts to trace the entire process chain of health judicialization from origins to perceived consequences, and contains three main parts: Part I taps into stakeholders' general perceptions of the current Benefit Plan and priority setting; Part II shifts the focus to the origins of litigation and the perceived effectiveness of the judicial process, and Part III analyzes two major types of litigation cases (malpractice and access to high technology medication and treatments – *recursos de amparo*) as well as perceptions of the consequences of judicialization.

The political economy of healthcare in general has a high level of complexity, and has been conventionally characterized as a "fuzzy" domain (Brugha and Varvaszowsky 2000: 244)[38]. Additionally, health litigation poses even more research and policy challenges given the fact that its increase is a relatively recent phenomenon, judicialization is a highly specific niche of inquiry, and its origins and consequences are not fully understood yet. Therefore, in the absence of other empirical studies of stakeholders' perceptions of the origins and effects of judicialization, we aimed for comprehensiveness when designing the semi-structured and structured components of the survey.

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[37] We are grateful to Dr. Santiago Pereira Campos, Dr. Rafael Garcia Martinez and other colleagues who were instrumental for the identification of stakeholders, interviews, survey design, pre-tests and implementation.

[38] Ruairí Brugha and Zsuzsa Varvasovszky. "Stakeholder Analysis: a Review," Health Policy and Planning (2000) 15 (3): 239-246.

The instrument contains a core of 37 questions that aimed to trace all the dimensions of litigation starting with overall perceptions of the Benefit Plan and priority setting strategies employed by the government, exploring features of the judicial process, and ending with consequences of litigation. The instrument design was inspired by recent methodological recommendations related to the study of the political economy of healthcare (Gloppen 2009: 26). We also used additional modules of group specific questions for judges, doctors, insurers, pharmaceutical companies and patient groups. The sections that present the main findings include the concrete formulation of survey questions designed to measure perceptions of efficiency and equity.

Our quantitative dataset includes 36 observations, with a response rate of around 75%, and distributed across groups as follows:

Table 1: Stakeholder groups and samples

Stakeholder group	*Interest group coding*	*Observations*
Executive (two ministries and one agency)	Government (unified agency)	7
Legislature	Government (unified agency)	6

Judiciary[39]	Government (unified agency)	4
Patient groups	Consumers' groups (organized)	6
Pharmaceutical companies[40]	Producer groups (organized)	3
Doctors' groups	Producer groups (organized)	2
Insurance companies	Producer groups (organized)	3
Lawyers' groups	Producers' groups (organized)	1
Media	Civil society/consumers(unorganized)	3
Academia	Civil society/consumers (unorganized)	1

Despite having a relatively small sample size (s), given that we work with stakeholders' (as opposed to general) population (N), the sample is representative as s/N is medium to high. With help from a team of local consultants with strong expertise and ties in both judicial and public health policy domains, we aimed to select the majority of relevant stakeholders. The relatively small population size in Uruguay made it more feasible for the research team to build a quasi-complete list of stakeholders. This task would have been significantly more daunting in larger countries.

For the quantitative component, we also fine-tuned the sample, by including additional actors nominated during the qualitative interviews. Moreover, healthcare litigation is a recent issue of relatively low salience even among very informed public health respondents in Uruguay. This aspect significantly reduces the pool of stakeholders who would be knowledgeable about its scope and effects. It also has a technical nature that renders its relevance low among many constituencies or organizations that are not directly affected by it. Therefore, we believe that our sample of respondents accurately

[39] For both the judiciary and pharmaceutical companies, our survey sample is quite small compared to the entire population (over 400 judges and over 80 pharmaceutical companies and laboratories active in Uruguay). Given that our survey attempted to tap into the perceptions of key stakeholders, the team, relying heavily on our local consultants, did its best to select some the most influential stakeholders in the judiciary, as well as to maximize variation of views on the issue of healthcare litigation. The same applies to the selection of respondents from the private sector. Despite feasibility issues that limited sampling involve, we managed to gauge perceptions of a mix of representatives from both foreign and domestic companies. Whereas our limitations in sampling does not allow us to statistically generalize results for the distinct populations of individual judges and pharmaceutical companies, the responses of key/influential representatives of both groups, as well as maximization of variation of views give us confidence in terms of their representativeness *within* the general population of key stakeholders. For the other groups and agencies represented in the survey, the respondents are either the heads or other high decision level within their organization, and the organizations are major national actors; the phrasing of the survey questions allowed us to distinguish between *individual* perceptions of our respondents, on one hand, and evaluations of *organizational* positions and incentives given the leading role the individual respondent played in their groups or organizations.

captures the views and assessments of a majority of actors with direct stakes in priority setting and judicialization of health.

In order to generate our empirical results, we perform standard statistical techniques (rank sum tests of means, ordered probit regressions, etc.). Whenever the statistical technique is sensitive to the small sample size (i.e. maximum likelihood estimation), we also used alternative tests (ANOVA and bootstrap quintile regressions and Bayesian techniques) for robustness check.

A) Empirical findings for the generic implications of the formal model

To briefly recap the formally generated hypotheses, we expect that for a given institutional configuration $S(\alpha,\beta)$, there will be significant divergence among the bliss points of various stakeholders according to their preferences on two dimensions (efficency and equity): a) healthcare producer, consumer or regulator; and b) the organized or unorganized nature of the lobbying group.

Hypothesis 1 implies that all healthcare policy consumers care about efficiency to a greater extent than the unified public sector agency.[41] Hypothesis 2 suggests that there should be systematic differences among unorganized groups and organized lobbies on the perceived *efficiency* and *equity* issues.

If our theoretical assumptions are correct, we should be able to observe stakeholder heterogeneity of perceptions in terms of their general evaluations of the efficiency and equity of the current Benefit Plan and priority setting strategies designed by the Government.

Our measures of efficiency and equity of benefit plans result from question 4 of the general survey, phrased as: "What is the perception of your organization in terms of: a) the quality of the Benefit Plan; b) The efficient distribution of resources within the Benefit Plan; c) The accountability of health care providers to patients; d) The capacity of the Benefit Plan to provide similar service quality and attention to both marginalized and non-marginalized groups; e) The capacity of the average patient to have access to prioritized healthcare services (…)."

The table below summarizes the main findings:

[41] Here, the *unified* public sector agency includes the three branches of government: the executive, legislative and the judiciary. Another version of this model and empirical testing will explore divergences in the bliss points of stakeholders representing separately these three groups.

Table 2: Differences of means among groups of stakeholders on the efficiency/equity dimensions (T-tests)

	Government/ Non-government	Producers/ Non-producers	Patients/ other groups	Executive	Judiciary	Legislative	Civil society/ non-civil society
Overall quality of the benefit plan	-1.162***	0.365	1.204***	-0.896**	0.167	-1.037***	1.162***
	(-4.78)	(0.99)	(3.40)	(-2.51)	(0.30)	(-2.79)	(4.78)
Efficiency	-0.954***	0.370	0.923**	-1.030***	-0.250	-0.269	0.954***
	(-3.77)	(1.07)	(2.41)	(-3.26)	(-0.48)	(-0.65)	(3.77)
Accountability of health care providers to patients	-0.346	0.141	0.423	-0.593	0.393	-0.180	0.346
	(-1.22)	(0.43)	(1.09)	(-1.69)	(0.81)	(-0.49)	(1.22)
Access of marginalized groups (equity)	-0.855***	0.0833	1.00**	-1.051***	0.161	-0.436	0.855***
	(-3.03)	(0.22)	(2.70)	(-2.88)	(0.29)	(-1.08)	(3.03)
Access of average patient (equity)	-0.733**	-0.102	0.923*	-0.875*	0.704	-0.667	0.733**
	(-2.16)	(-0.25)	(1.81)	(-2.04)	(1.18)	(-1.51)	(2.16)
N	33	33	33	33	33	33	33

t *statistics in parentheses; p* 0.10 ** 0.05*** 0.01*

Note: Two-sample Wilcoxon (Mann-Whitney) rank-sum test results for ordinal variables hold

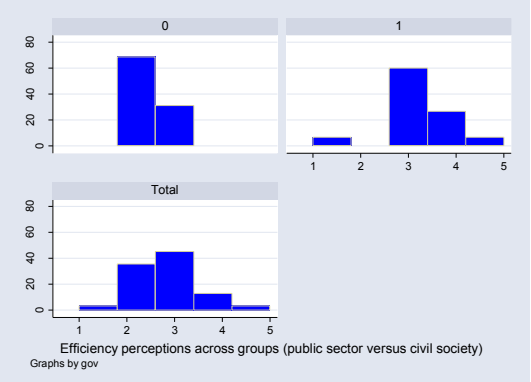
The table presents simple differences of means among groups of stakeholders according to perceptions of five main characteristics of the Benefit Plan (among which *efficiency* and *equity* are

prominent features). As the test operates with the null hypothesis H0: *mean (group 0) – mean (group 1) =0*, a negative sign (and statistically significant coefficient) should be interpreted as a significantly more positive evaluation given by group 1 on dimension x, than stakeholders who do not belong to group 1. More concretely, one should read the evaluation of the overall quality of the Benefit Plan by government as being significantly more favorable than everybody else who is not a member of the executive, the legislature or the judiciary. In contrast, a positive and significant difference means that the main tested group has a less favorable assessment of dimension x. We can see, for example, that civil society members, overall, assess the Benefit Plan and priority setting strategies designed and implemented by the public sector less favorably than government stakeholders on four different dimensions (overall quality, efficiency and two different measures of equity). The results clearly illustrate a sharp division of perceptions mainly between the representatives of the unified public sector agency (particularly the executive and the legislative branches), on one hand, and patient and civil society groups, on the other hand.

Efficiency

The histogram below plots the distribution of efficiency assessments across two major groups (unified government agencies – 1, and civil society – 0).

Figure 1: Efficiency bliss points across groups of stakeholders[42]



Likert scale:	Very inefficient	Inefficient	Satisfactory	Efficient	Very efficient
Values:	1	2	3	4	5

[42] The Likert scale provided an additional category "I don't know" omitted here for clarity of exposition.

The Likert scale (with values between 1 and 5) asked survey respondents to evaluate the "*efficient* distribution of resources within the Benefit Plan." Lower values (1, 2) refer to categories Very inefficient and Inefficient, higher values (4, 5) to Efficient and Very efficient. As illustrated by the histogram, members of government branches are significantly more likely than members of civil society groups to assess the Benefit Plan in Uruguay as being efficient.

If we treat stakeholders' assessments of efficiency and equity as being proxies for group bliss points, the empirical analysis confirms Hypothesis 1 derived from the model: the public sector agency overall is satisfied with the *efficiency* status-quo, whereas patient groups and unorganized civil society groups are less (or not) satisfied.

Table 3: Efficiency bliss points with controls (ordered probit estimation)[43]

	(Model 1)	*(Model 2)*
	Efficiency assessments	***Efficiency assessments***
Government stakeholder	1.390***	1.217**
	(2.67)	(2.17)
Formal participation in consultations on the Benefit Plan	-0.933*	
	(-1.89)	
Knowledge of formal consultations for Benefit Plan changes		-0.985*
		(-1.84)
_cut1	-3.124***	-3.102***
	(-2.97)	(-2.73)
_cut2	-1.403	-1.634
	(-1.49)	(-1.58)
_cut3	0.404	0.317
	(0.43)	(0.32)
_cut4	1.588	1.493
	(1.59)	(1.42)
N	28	25
t statistics in parentheses		
* p<0.10;** p<0.05;*** p<0.01		

[43] Given that the dependent variable is ordinal (measured from 1 to 5 on a Likert scale), we used maximum likelihood estimation while being aware that the analytical shortcomings of ordered probit are the result of the small sample size. Conventional bootstrap OLS results also hold.

One of the criticisms that could be raised against deriving policy ideal points from subjective efficiency assessments stems from the existence of information asymmetries. If some actors (say, government members) are overall better informed about the *objective* allocation of resources for priority setting than civil society representatives, then *the subjective evaluations* of the status quo (presented in Table 2) might capture the extent of such asymmetries and not necessarily bliss points. Table 3 above seeks to control for the extent of information asymmetries between government and non-state stakeholders, by including two independent variables that measure the knowledge of participants about formal consultation processes related to changes in the Benefit Plan, as well as their own participation in such platforms. We derived the quantitative measures for these controls from question 8 of the survey phrased as follows: "According to the opinion/knowledge of your organization: a) is there a process of formal consultation when changing/adjusting PIAS and FTM?[44] (…) c) If there is a formal consultation process (during the stage of adjustments made to the Benefit Plan), has your organization participated?" The response options are Yes (coded as 1 in the database) and No (coded as 0).

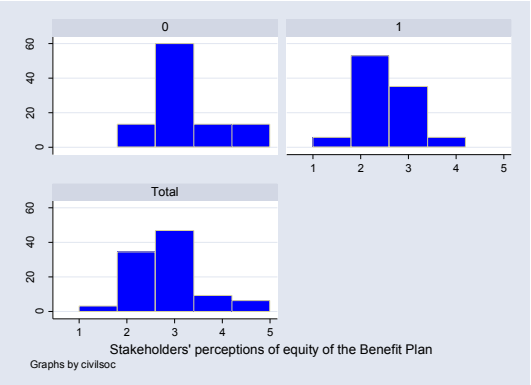
We see that even controlling for these two variables, being a member of government (as the unified public sector agency) still has a significant and large impact on the evaluation of *efficiency*, confirming the hypothesis that all policy consumers (both organized lobbies and unorganized groups) will value/prioritize efficiency more than the agency $\beta^{*j} > \beta^{*\phi}$.

Equity

The equity dimension shares similarities with the efficiency evaluations. Members of patients' groups and non-state actors are more likely than government representatives to negatively assess the equity status quo (specifically, the access of marginalized groups and of the average user to the Benefit Plan).

[44] PIAS is Plan Integral de Atencion a la Salud; FTM: Formulario Tecnico de Medicamentos.

Figure 2: Equity bliss points across groups of stakeholders

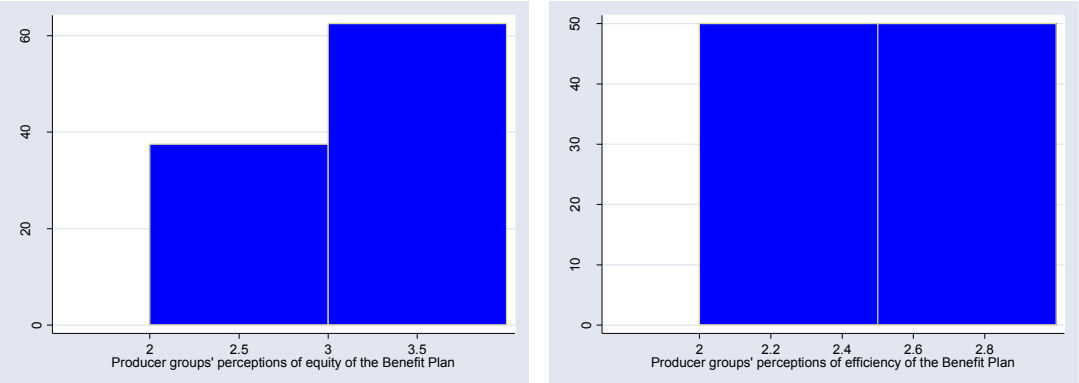


Likert scale:	Very inequitable	Inequitable	Satisfactory	Equitable	Very equitable
Values:	1	2	3	4	5

Hypothesis 2 of the model predicted that unorganized groups are more concerned about equity effects than organized groups $\alpha^{*j\notin L} > \alpha^{*j\in L}$. If this is empirically correct, then lobbying healthcare producer groups (such as pharmaceutical companies, doctors groups, insurers) should have less divergence from the government's assessments of equity compared to patient/consumers groups.

The two histograms below show the distribution of respondents representing organized lobbies on the equity dimension.

Figure 3: Organized lobbies' comparative assessments of the efficiency and equity of the Benefit Plan and priority setting strategies

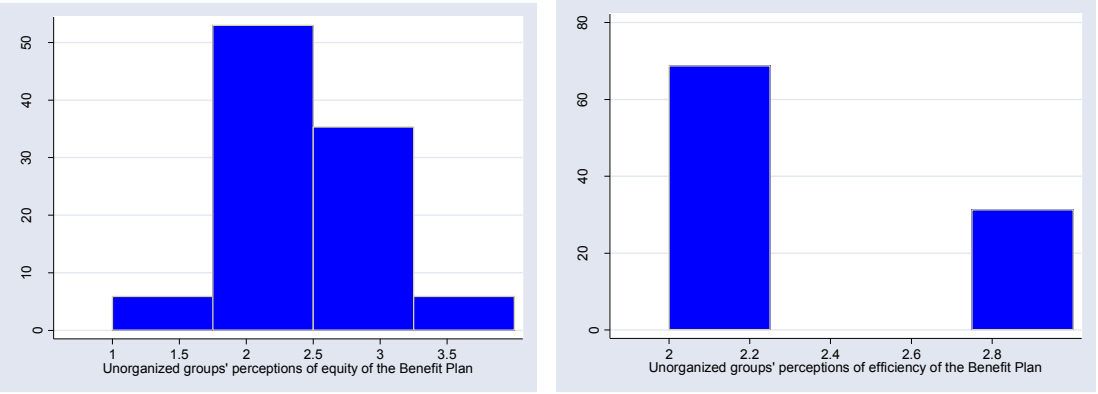


Likert scale:	Very low	Low	Satisfactory	High	Very high
Values:	1	2	3	4	5

As Figure 3 shows, the mean perception of producers' evaluations of equity is significantly higher than the mean for efficiency. In other words, lobbying groups' ideal points on equity (3.37) and the government's ideal points diverge less than on efficiency (a mean of 2.5 for organized groups' perceptions). The difference of means is statistically significant. Analytically, this means that even if producer/organized groups are not more or less likely than unorganized groups to perceive equity effects (see Table 2 for the lack of statistical significance), they are still more likely to be critical and observant of efficiency implications. Whereas roughly agreeing with the government evaluations of equity of access, they give a significantly lower score on the efficiency of resource allocation than the members of the executive.

Interestingly enough, for unorganized (or less organized) groups such as civil society (including patient groups), equity concerns are statistically less salient than efficiency (a mean of 2.92 for equity compared to 2.35 for efficiency) (see below). For patient groups, the means are almost indistinguishable, with a small (insignificant) higher salience values for equity. However, as Table 2 indicates, unorganized groups diverge on both equity and efficiency evaluations from the government perceptions.

Figure 4: Unorganized lobbies' comparative assessments of the efficiency and equity of the Benefit Plan and priority setting strategies



Likert scale:	Very low	Low	Satisfactory	High	Very high
Values:	1	2	3	4	5

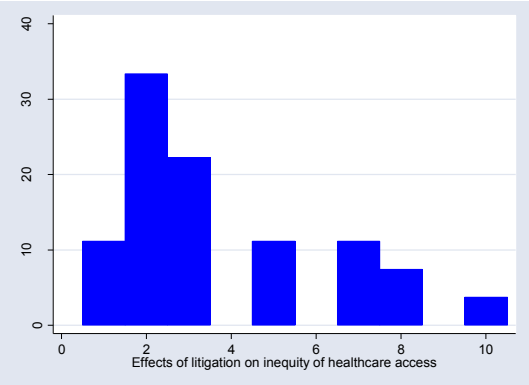
B) Empirical findings for the specific implications of the formal model – consequences of healthcare litigation

Now, from the Benefit Plan and priority setting strategies, we move to an analysis of the perceived effects of healthcare litigation in Uruguay. Our respondents were asked to evaluate two types of litigation cases: a) *recursos de amparo* (for the incorporation of new medicine and high cost technology in the Benefit Plan); and b) *malpractice cases* directed against individual doctors or healthcare providers.

Question 28 of the survey asks respondents "what are the consequences of healthcare litigation?" and offers seven judgments. Two options are particularly relevant to our analysis: "d) Litigation decreases the incentives of inefficiency in terms of administration and patient care; and h) Litigation increases inequalities of access to health services." The Likert scale has four values (Never (1), Little (2), Sometimes (3) and Significantly (4). Options d and h served as our efficiency, respectively equity thermometers. As a robustness check for our equity measure, we used an additional question (number 29 in the survey) phrased as: "In general, to what extent would you say that healthcare litigation resulted in health services that are more responsive to litigants compared to non-litigant users?" This question was accompanied by a 10 point Likert scale, where 1 means "there is no difference between the two groups" and 10 "the two groups are very different."

Overall, the majority of stakeholders see positive effects of both types of litigation in terms of reducing administrative efficiencies related to the design and adjustment of the Benefit Plan. Specifically, on the *equity* dimension, despite a large standard deviation indicating some degree of uncertainty, 78% of all respondents do not think that judicialization has a distorting impact in terms of general access to the healthcare system (see Figure 5 below):

Figure 5: Healthcare litigation and equity



Likert scale: No difference between litigants and non-litigants	Large difference between litigants and non-litigants
Values:	1 ……2 3 4 5 6 7 8 9…… 10

In other words, according to respondents' answers, the litigants are not perceived as being more likely than non-litigants to obtain higher access to the healthcare system. To date, we do not have evidence (in terms of stakeholders' perceptions) that, on average, health litigation poses equity concerns in Uruguay. However, when analyzing equity implications, in addition to consequences of access, origins of litigation also become essential. If there is a self-selection effect (i.e. mobilized groups with greater financial and legal resources are more likely to litigate than the poor and/or unorganized interests), then judicialization of health is likely to have a significant equity effect.

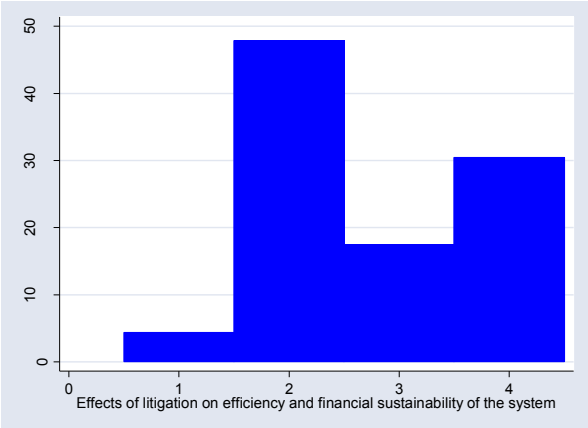
In general, during interviews, socio-economic class in Uruguay is perceived as having an ambiguous effect in terms of increasing the propensity of certain individuals to litigate or not; in the quantitative component of the study, 78% of all respondents agreed that low income individuals are not likely to initiate litigation; over 60% think that litigation is a middle or upper class act. There is, however, an asymmetry of perception: consumer groups/patients see it to a greater extent as a lower-middle class empowering phenomenon compared to all other stakeholders.

Additionally, perception of mobilizational patterns matters when evaluating equity concerns. If stakeholders empirically associated mobilizational agents (such as pharmaceutical companies, activist patient groups, lawyers, etc.) with individual litigants bringing cases to court, there would be equity implications as investments and outcomes would be skewed towards groups with greater resources. In our sample, only 30% of surveyed stakeholders perceive sustained mobilization attempts from private

companies with commercial interests. It follows that the general perception (some level of heterogeneity in responses notwithstanding) in Uruguay is that healthcare litigation does not pose major equity problems for the time being.

Unlike in the case of *equity,* on the *efficiency* dimension (including on questions referring to the overall threat to the financial sustainability of the Benefit Plan caused by potentially rising litigation), there is more variation of perceptions among respondents (see histogram below). A simple majority of 52.17% of stakeholders who responded to our quantitative survey perceive that there is very little effect overall. The histogram displayed in Figure 6 below plots the distribution of responses to Question 32 of the survey: "Do *recursos de amparo* in healthcare affect any of the following categories?" Option 4 ("The financial sustainability of the system") is a good additional measure of equity concerns.

Figure 6: Healthcare litigation and efficiency



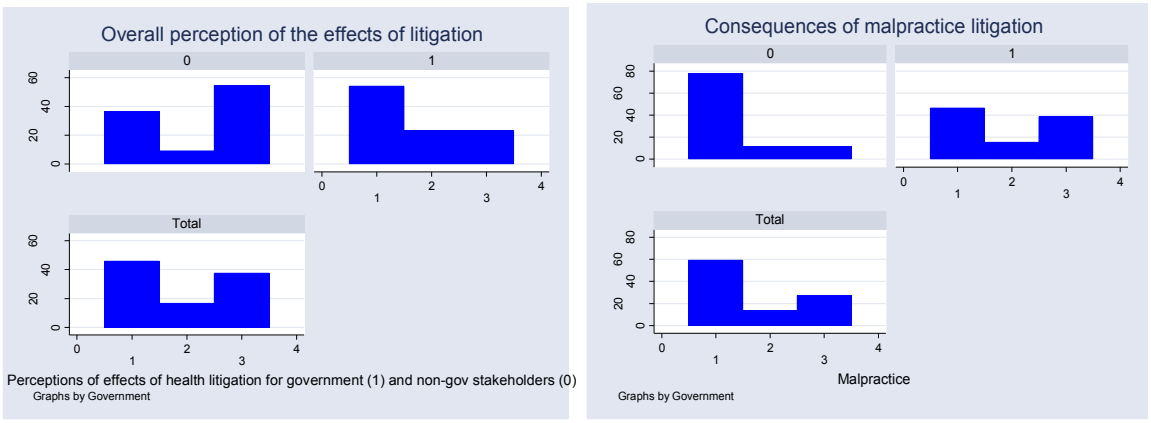
Likert scale:	No effect	Little effect	Some Effect	Significant effect
Values:	1	2	3	4

Given this brief background of the baseline equity and efficiency perceptions among stakeholders, we now turn to specific tests of the hypotheses derived from the substantive literature on the impact of health litigation part of the formal model. To recap the major empirical implications, a change in the institutional context facilitating or inhibiting judicialization of healthcare from $S(\alpha,\beta)$ to $S'(\alpha',\beta)$ will generate predictable reactions from different actors. Generally, an institutional change will affect the welfare of a given group depending on how its marginal effect alters the perceived efficiency and equity of different actors.

1) *The public sector agency*, according to the model, is expected to shape its attitude towards litigation according to the limits judicialization poses on agency rent extraction and/or policy departures from the agency's bliss point: $\phi = \{\beta < \ell\}$.

Questions 33 and 34 of the survey ask stakeholders to answer: "in general, what are the consequences of increasing health litigation" for both types of cases (*recursos de amparo,* respective malpractice). The results are displayed below.

Figure 7: Perceptions of the unified public sector agency on the overall effects of health litigation



Likert scale: *Consequences:*	Negative	Neutral	Positive
Values:	1	2	3

Figure 7 shows comparatively the negative (1), neutral (2) or positive (3) evaluations by all three branches of government (group 1) and civil society (group 0) for both types of litigation (*amparos* and malpractice). The government respondents, overall, see negative consequences for *amparo* litigation, but are more divided on the issue of malpractice cases, as the agencies do not deal with the latter category directly. On the other hand, non-state actors are more divided on the issue in general, with a slight propensity to evaluate *amparo* effects as being positive. This empirical pattern confirms the expectations regarding the attitudes of the unified public sector agency derived from the formal model.

2) The predictions of our model suggest that *unorganized groups* will ascribe negative consequences to rising healthcare litigation if the following conditions are met:

$$j \notin L = \begin{cases} \alpha' > \alpha \,\&\, \beta > \beta \\ \alpha' > \alpha \,\&\, \beta = \beta\_if\_\beta \neq 0 \\ \alpha' = \alpha \,\&\, \beta > \beta \\ \alpha' > \alpha \,\&\, \beta < \beta\_but \mid \alpha' \mid > \mid \beta \mid \\ \alpha' < \alpha \,\&\, \beta > \beta\_but \mid \alpha' \mid < \mid \beta \mid \end{cases}$$

This set of conditions implies a potentially ambiguous effect of rising litigation effect on unorganized groups (the net effect will depend on whether the welfare gain from a reduction in rent-extraction is greater or smaller than the welfare gain from the increased power of lobbies).

If we treat patient/consumer groups as less organized than corporate lobbies, we notice indeed a statistically significant difference between consumers, on one hand, and regulators and producers, on the other hand, with consumers seeing the effects as being particularly positive (a mean of 3, compared to a mean of 1.87 – lower than neutral for the non-consumer group).

3) *Organized groups (lobbies)* favor rising judicialization if:

$$j \in L = \begin{cases} \alpha' < \alpha \,\&\, \beta > \beta \\ \alpha' < \alpha \,\&\, \beta = \beta\_if\_\beta \neq 0 \\ \alpha' > \alpha \,\&\, \beta > \beta\_but \mid \alpha' \mid < \mid \beta \mid \end{cases}$$

In general, lobby groups will have a positive perception of the effects of rising litigation as it reduces rent extraction of the public sector agency and allows their indirect influence on adjustments of the Benefit Plan.

One of the problems commonly associated with perception surveys is self-identification of incentives and stakes. In other words, lobbies might not publicly state what their true gains following litigation are, while having strong private beliefs about their sign and magnitude. Therefore, in order to correct the self-identification bias, we also include a control (*Perception of Lobby Influence)* that captures the overall assessment of the intensity with which "members of the private sector with commercial interests mobilize or help litigants" (question 13 of the survey). This variable is ordinal and ranges from 1 (never) to 5 (continuous mobilization efforts).

Here are the empirical findings:

Table 4: Ordered probit estimation of perceived consequences of rising health litigation

	(1)	(2)	(3)
	Litigation effects	*Litigation effects*	*Litigation effects*
Perception of lobby influence	-0.458**	-0.455**	-0.207
	(-2.24)	(-2.22)	(-0.83)
Organized lobbies (producers)		-0.342	
		(-0.62)	
Unorganized interests (consumers)			1.436*
			(1.94)
_cut1	-1.589**	-1.683**	-0.474
	(-2.19)	(-2.26)	(-0.50)
_cut2	-1.086	-1.173	0.0906
	(-1.56)	(-1.64)	(0.10)
N	*24*	*24*	*24*
t statistics in parentheses			
* p<0.10; ** p<0.05; *** p<0.01			

The results are quite nuanced. On one hand, the conditional effect captured by the model (actors' awareness of litigation causing higher lobby influence) is significant and substantive. The more stakeholders are aware (or perceive) that judicialization makes the public sector agency more permeable to organized lobby interests, the less positive they evaluate the overall consequences of rising litigation.

We do find some level of confirmation for our unorganized group hypothesis: on average, consumer and civil society groups are more likely to see judicialization as positive even after controlling for awareness of lobby influence. With respect to *organized producers' groups,* the results are quite

ambiguous (the coefficient is not statistically significant and its sign is negative, suggesting that the overall evaluation of lobbying groups might diverge from our model's prediction). According to the self-defined stakes in rising healthcare litigation, pharmaceutical companies and doctors' groups in Uruguay find litigation to have negative consequences for their organizations, and insurers assess it as being neutral. Whereas the doctors' lobby's perceptions are expected given the losses incurred through malpractice cases, the position of the pharmaceutical companies is somewhat unexpected. There are several potential explanations: (1) the self-defined stake identification with respect to litigation might conceal private preferences of private interests;[45] (2) equity is part of the general policy environment in Uruguay, and the market/reputational costs of skewing equity outcomes for pharmaceutical companies might be higher than the actual lobbying benefits; and (3) The Uruguay pharmaceutical market, given its small size, as well as the close knit community of policymakers, might have idiosyncratic characteristics restraining the lobbying behavior of some organized interests. Further case studies of healthcare litigation and actors' preferences can elucidate the empirical puzzle.

V. Conclusion

The political economy of public health care provision is characterized by complexity. Issues of efficiency and equity ensure that different actors have (partially) conflicting agendas. Thereby, perceptions of the welfare effects of the public health care system, as well as proposed changes to its operation, are likely to engender complex trade-offs and welfare implications for different stakeholders. Through this working paper, we sought to contribute to the growing corpus of work in this field, by developing and testing the implications of a simple model of the political economy of public health systems. Utilizing the insights of the existing literature, as well as modeling frameworks, we were able to generate a model from which we could derive a set of generic hypotheses regarding how different actors (stakeholders) will perceive the status quo of priority setting in the public health care system, as well as, in conjunction with substantive assumptions from the governance literature, how such actors would perceive the effects of increasing healthcare judicialization.

The generic model anticipates that public health care agents will be less concerned about efficiency in the system vis-à-vis health care consumers- as more efficiency in resource allocation diminishes the latter's ability to extract rents from the public health care system. While public health

[45] We tried to address the issue of private versus public beliefs here by including the respondents' indirect assessments of lobbies' gains from litigation (our control, *Perception Lobby Influence*).

care consumers prefer a more efficient public health care system, they are divided over equity concerns Specifically, more organized public health care consumers, capable of more effectively lobbying/litigating, will be less concerned about the equity dimension of health care provision vis-à-vis unorganized groups.

The substantive literature on the impact of health litigation also allows us to generate a set of secondary or substantive hypotheses. Specifically, much of this literature suggests that while increased health litigation may increase efficiency, it has an adverse effect on equity.

Empirically, we first tested the generic implication of the formal model and found confirmation of our hypothesis. Non-state actors (health care consumers) are, on average, more concerned with efficiency than the public sector agency (health care producers). Secondly, more organized groups are more likely than patients or civil society (unorganized groups) to place a lower emphasize on equity issues.

In terms of substantive implications of healthcare litigation, we analyzed two types of judicialization related to healthcare: malpractice and *recursos de amparo* (related to the inclusion of high technology medication in the Benefit Plan). Our findings presented in Part 2 of the paper are somewhat counterintuitive and challenge the major assumptions of at least some of the substantive literature. Overall, awareness of lobby group involvement in litigation related mobilization renders a negative perception of stakeholders with respect to the consequences of litigation. Patients and civil society (as unorganized groups) perceive litigation as increasing access to the Benefit Plan, therefore positive. Organized groups including pharmaceutical companies have an ambiguous position, with a negative self-defined perception. This result challenges our theoretical expectations. We speculate on some of the potential explanations but are aware that a comparative case study and stakeholder mapping would help us elucidate the puzzle.

In our modeling strategy employed in this paper we treat the public sector agency as being unified, but we are aware that there is an additional political economic game played between branches of government (particularly, the executive and the judiciary) that generates judicialization equilibria in healthcare. Further formal and empirical research will hopefully give us greater theoretical leverage for addressing these issues.

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